DEPARTMENT OF THE ARMY PERMIT EVALUATION AND DECISION DOCUMENT

Applicant: Freeport Regional Water Authority (Eric Mische)
Application No: 200000025

This document constitutes my Environmental Assessment, Statement of Findings, and review and compliance determination according to the Section 404(b)(1) guidelines for the proposed work (applicant's preferred alternative) described in the public notice issued by the Sacramento District.

I. Proposed Project: The location and description of the proposed work are specified in the attached Public Notice for the project, as well as documents submitted by the applicant, including Draft and Final Environmental Impact Statement/Report (DEIS/EIR), Delineation of Waters of the United State, including Wetlands, for the Freeport Regional Water Project (FRWP), Biological Opinions issued by the U.S. Fish and Wildlife Service and NOAA Fisheries, NEPA Record of Decision, and others. The proposed project is comprised of a 10-acre water intake site located on the Sacramento River near the town of Freeport (Section 11 T 7N, R 4E), an 80-acre water treatment plant site (Section 33 T 8N R 6E), a terminal facility located on the Folsom South Canal (Section 6 T 7N, R 7E), a canal pumping plant (Section 2 T 5N R 7E), and an aqueduct pumping plant and pretreatment facility at the Mokelumne Aqueduct (Section 7 T 4N, R 9E). The western portion of water pipeline extends approximately 16.7 miles from the intake facility to the Folsom South Canal; the second pipeline corridor runs from the terminus of the Folsom South Canal southeast to the Mokelumne Aqueduct. A pipeline is also proposed between the water treatment plant site and the western portion of the pipeline, at the intersection of Gerber and Vineyard Roads, a distance of about 1.2 miles.

A. Changes to the proposed project since circulation of the public notice: No substantive changes to the project description, but additional information obtained on the hydrology of the water treatment plant site reduced the estimate of jurisdictional waters present there. Simlarly, slight refinements in pipeline alignment resulted in minor reductions to overall project impacts.

B. Specific activity that requires a Department of the Army permit: Fill and work in navigable waters (Sacramento River) at the water intake facility, temporary and permanent impacts to a variety of waters of the U.S., including wetlands, as a result of fill, excavation, or other activities. Waters that would be impacted include: depressional wetlands (i.e., closed, flow through, vernal pool/swale, and drainage ditch) exhibiting both permanent and nonpermanent surface water; riverine wetlands (i.e., flow through and impounding); and other waters (i.e., ephemeral drainages, intermittent drainages, perennial drainages and

ponds). Named perennial and intermittent drainages include Gerber, Morrison, Union House, Elder, Laguna, Beacon, Strawberry, Coyote, Skunk, Dry, Murphy, and Goose Creeks, as well as the Mokelumne River.

II. Environmental and Public Interest Factors Considered:

A. Purpose and need: The basic project purpose is water supply. The overall project purpose is to increase water service reliability for customers of the members of the FRWA Joint Powers Authority, i.e., the Sacramento County Water Agency and the East Bay Municipal Utility District. The Sacramento County Water Agency s overall project purpose is constrained further by its need for a reliable water supply to the Zone 40 area (as shown on the attached figure).

B. Alternatives [33 CFR 320.4(b)(4), 40 CFR 230.10]

1. No action: No permit would be issued and work in the Sacramento River and discharges of dredged or fill material into waters of the U.S. would not occur as proposed by the applicant. Proposed development of the Zone 40 region would move forward only to the extent that an alternative water source(s) is identified.

2. Other project designs (smaller, larger, different, etc.): Because the applicant is a Joint Powers Authority consisting of the Sacramento County Water Authority (SCWA) and the East Bay Municipal Utility District (EBMUD), alternatives that would meet the project purposes of the two entities (i.e., water supply reliability) both individually and in concert with the other were examined. A variety of criteria, economic, water quality, technical and operational, jurisdictional, and reliability were evaluated for each alternative.

FRWA member agencies have examined numerous alternatives over the past 30 years, although many were rejected as infeasible or because of significant environmental or other issues. Those considered in detail and found impracticable are:

a. American River Diversion: A number of potential intake sites, designed to serve either SCWA s or EBMUD s needs, along the American River were considered, but because of the sensitive nature of the American River, these were all eliminated from further consideration, as being contrary to the intent of the Water Forum, as well as posing additional concerns.

SCWA Only Alternatives:

b. Sacramento River Diversion at Sacramento River Water Treatment Plant: Under this option, SCWA would take delivery of surface water at a new intake location on the Sacramento River near the new City of Sacramento intake structure just downstream of the confluence with the lower American River. Water from the intake facility would be piped to a new addition to the City of Sacramento s WTP (SRWTP); and distributed to several selected delivery points in Zone 40 in central Sacramento County.

Although this alternative meets the economic/cost, water quality, and reliability criteria, it fails to meet most of the project objectives, and is impracticable from a technical standpoint. In addition, it is speculative whether it would be capable of meeting the timing/schedule criterion, and some uncertainty exists about its ability to meet the environmental and biological criteria.

EBMUD Alternatives

c. Sacramento River Diversion at Sacramento River Water Treatment Plant: Under this alternative, EBMUD would take delivery of surface water at a new intake location on the Sacramento River near the City of Sacramento intake structure just downstream of the confluence with the lower American River. Water from the intake facility would be piped to the Folsom South Canal, then pumped to the Mokelumne Aqueduct where it would be treated, then supplied to the Aqueduct.

Although this alternative meets the economic/cost, water quality, and reliability criteria, it is impracticable based on technology. In addition, it is speculative whether this alternative could meet the environmental, biological and timing/schedule criteria.

d. Delta Diversion: Under this alternative, EBMUD would construct a new intake structure on the bank of Indian Slough immediately adjacent to the Mokelumne Aqueduct. There are two potential options using different water treatment approaches, but both include construction of a water treatment plant at the Aqueduct and delivery of the treated water to the EBMUD distribution system.

While Option 1 would generally meet most of the criteria, it fails to meet the environmental and biological and water quality criteria. Option 2 fails to meet environmental and biological, technical and operational, timing/schedule, economic/cost, and reliability criteria. Both are therefore considered impracticable.

e. Seawater/Brackish Water Desalination: Under this alternative, EBMUD would construct a desalination plant near or immediately upstream of San Francisco Bay. Potential locations are EBMUD s existing wastewater treatment plant at the eastern end of the Bay Bridge, C&H Sugar in Crockett, and Mirant Power Plants in Antioch and Pittsburg. Salt water would be pumped from the Bay and treated through a reverse osmosis process. The treated water would be placed into EBMUD s distribution system and the resulting concentrated brine would be discharged back to the Bay.

This alternative fails to meet the technical and operational and water quality criteria. In addition, whether this alternative could meet the environmental and biological, jurisdictional, timing/schedule, and economic/cost criteria is speculative. It is impracticable from technical and logistical standpoints.

f. Enlarge Existing Reservoirs Storage/ New Reservoir Storage: Over 45 potential reservoir expansion or development projects were examined. Only two were examined in any detail;

the others were determined to not provide sufficient storage volume and/or exhibited other fatal flaws.

i. Enlarge Reservoir Storage at Expanded Los Vaqueros Reservoir: This alternative would involve construction of a new dam, most likely downstream of the existing dam, and construction of new pipelines to the Delta, new pump stations, and recreation facilities. Three primary options appear to be feasible conceptually.
Option 1 Mokelumne River Supplies: Under this option, EBMUD would store excess flows in an expanded Los Vaqueros Reservoir. New pipeline(s) and pumping facilities would be constructed from the existing Mokelumne Aqueduct to Los Vaqueros Reservoir to provide a connection to and from EBMUD s system.
Option 2 Delta Diversion with CVP Supplies: Under this option, EBMUD would construct or participate in the construction of new Delta diversion facilities that would be operated in conjunction with an expanded Los Vaqueros Reservoir to divert excess supplies. A new pipeline connection would be needed between the reservoir and the Mokelumne Aqueduct.
Option 3 FRWP with CVP Supplies: Under this option, water would be diverted through joint FRWP facilities and delivered to the Los Vaqueros Reservoir via the Mokelumne Aqueduct as under Option 1.

This alternative (all three options) is impractical based on technology and logistics. It is speculative and needs to be studied further before implementation. In addition, there are substantial environmental issues that would need to be addressed. Finally, even if all of these issues could be addressed, it is not clear that, given the reservoir s potential to be used for a wide range of purposes, an expanded Los Vaqueros Reservoir would allow EBMUD to fulfill its stated project purpose (i.e., water supply reliability during dry and drought periods).

ii. Enlarge Pardee Reservoir: This alternative would involve construction of a new dam downstream of the existing dam, refurbishing the existing intake structure and intake tunnel, replacing the powerhouse and transmission lines, and relocating roads and recreation facilities.

This alternative was examined as a practicable alternative.

3. Other sites: A comprehensive comparison of the environmental effects of five potentially practicable alternatives (plus the No Action alternative) was conducted as part of the FRWP EIR/EIS analysis. Each alternative was determined to be technically and operationally feasible, able to provide a reliable source of water at the required quality standards, and able to be implemented in a reasonable timeframe. Alternatives differed in the alignment of the pipeline, location of the water treatment plant and, in one instance, the method of water supply to EBMUD (i.e., Alternative 6). In addition, as a result of substantial comments received on the Draft EIS/EIR, groundwater banking options were further explored. Alternatives described below use the identifiers in the DEIS/EIR.

a. Pipeline Alignments

Alternatives 2 through 5 all occupy the same alignment from the terminus of the FSC to the Mokelumne Aqueduct, that is, along Clay Station Road, east at the intersection with Liberty Road, then southeast to the Aqueduct. This alignment was determined to be the Least Environmentally Damaging Practicable Alternative (LEDPA) because, as described in the FRWP EIS/EIR, it substantially minimizes impacts to aquatic and other resources when compared to other alignments available.

Alternatives 2 through 5 differ in the choice of pipeline alignments from the Sacramento River intake site to the FSC:

Alternative 2: Freeport Intake Facility to FSC along the Meadowview/Mack/Gerber/Florin Alignment

Alternative 2 would convey water from the proposed intake structure at the Sacramento River near Freeport northeast to Freeport Boulevard and north along Freeport Boulevard to the intersection with Meadowview Road. The pipeline would then travel east/southeast on Meadowview/Mack Road to the Mack Road/Power Inn Road intersection, at which point it would continue east on Elsie Road, then east on Gerber Road, with an extension at Vineyard Road to the proposed water treatment plant, then along Florin Road to the Folsom South Canal (FSC).

Evaluation
After completion of the draft EIR/EIS, it was learned that the right-of-way along the Meadowview Road/Mack Road corridor is no longer available because of strenuous objections by the City of Sacramento which owns the right-of-way, and area residents. Therefore, Alternative 2 is not practicable based on logistics.

Alternative 3: Freeport Intake Facility to FSC along the Meadowview/Mack/Gerber Alignment

Alternative 3 would differ from Alternative 2 in that the EBMUD pipeline to the FSC would continue past the Vineyard Road extension to the proposed water treatment plant east on Gerber Road instead of turning north on Bradshaw to Florin Road. East of the Gerber Road terminus at Excelsior Road, the alignment would continue cross country over primarily open or undeveloped lands that historically have been in agricultural or open-space uses to the FSC. To ensure all-weather access, a gravel road may be constructed along the Gerber Road extension corridor.

Evaluation
As with Alternative 2, the right-of-way along the Meadowview Road/Mack Road corridor is no longer available for the project. Therefore, Alternative 3 is not practicable for logistical reasons.

Alternative 4: Freeport Intake Facility to FSC along the Cosumnes River/Power Inn/Gerber/Florin Alignment

From the intake facility on the Sacramento River, the pipeline alignment would run northeast to I-5, then southeast along I-5, crossing under I-5 before reaching the intersection with the future extension of Cosumnes River Boulevard. From this intersection, the alignment follows the proposed future extension of Cosumnes River Boulevard between I-5 on the west and Franklin Boulevard. This road project, a joint effort between the City of Sacramento and the California Department of Transportation/Federal Highway Administration, is currently in the final design and permit planning phase and could go to construction on a timeline similar to the FRWP. The alignment then crosses portions of the approximately 2,500-acre open space Bufferlands surrounding the Sacramento Regional Waste Water Treatment Plant. The pipeline alignment then continues along the existing Cosumnes River Boulevard, crosses additional open-space land to avoid the SR 99/Cosumnes River Boulevard interchange, crosses under SR 99, and then turns north on Power Inn Road to the intersection with Mack Road/Elsie Avenue. From this point, it follows Elsie Avenue, Wilbur Way, and Gerber, Bradshaw, and Florin Roads. An extension from Gerber Road would connect the main pipeline to the water treatment plant.

Evaluation
Approximately two miles of the Alternative 4 alignment are located in the same corridor through the Delta Shores area as two other projects the City of Sacramento Cosumnes River Boulevard Extension, and Sacramento Regional County Sanitation District s Lower Northwest Interceptor (LNWI) regional wastewater pipeline. These two projects in the Delta Shores area are expected to cause similar environmental impacts along this proposed FRWP alignment. These impacts are expected regardless of the alternative chosen for the FRWP. Thus, the FRWP would not cause any additional impacts in this area. In addition, from an environmental justice and community impact standpoint, the Cosumnes River Boulevard alignment is superior because it is the greatest distance from built-up areas, substantially minimizing construction-related impacts on existing communities.

Alternative 4 would include installation of pipeline within the Florin Road corridor east of Bradshaw Road rather than along the Gerber Road Extension corridor. The Florin Road right-of-way east of the proposed water treatment plant site crosses through vernal pool preserves, existing and proposed mitigation banks, and open space conservancies. In addition, because Florin Road is a major connector between Sunrise Boulevard and areas to the west, the Sacramento County Department of Transportation has indicated that it would be unlikely that the pipeline could be constructed within the road right-of-way due to the substantial traffic problems that would result. In addition, even if the pipeline could be constructed within the right-of-way, a detour around the construction areas would likely be required. Such a detour(s) would necessarily be located within vernal pool preserves and mitigation banks, thereby resulting in additional impacts on aquatic resources. Alternative 4, although considered practicable if right-of-way can be secured within the Florin Road corridor, is expected to cause greater net impacts on aquatic resources than the preferred alternative.

Alternative 5: Freeport Intake Facility to FSC along the Cosumnes River/Power Inn/Gerber Alignment

Alternative 5 is the preferred alternative. The Alternative 5 alignment is identical to Alternative 4 until it reaches the intersection of Gerber and Bradshaw Roads. Instead of turning north on Bradshaw Road to the Florin Road corridor, the Alternative 5 alignment continues east on Gerber Road to the road s terminus, then cross-country to the FSC. The pipeline extension to the proposed water treatment plant would follow the Vineyard Road extension. To ensure all-weather access, a gravel road may be constructed in the Gerber Road extension corridor.

Evaluation
Approximately two miles of the Alternative 4 alignment are located in the same corridor through the Delta Shores area as two other projects the City of Sacramento Cosumnes River Boulevard Extension, and Sacramento Regional County Sanitation District s Lower Northwest Interceptor (LNWI) regional wastewater pipeline. These two projects in the Delta Shores area are expected to cause similar environmental impacts along this proposed FRWP alignment. These impacts are expected regardless of the alternative chosen for the FRWP. Thus, the FRWP would not cause any additional impacts in this area. In addition, from an environmental justice and community impact standpoint, the Cosumnes River Boulevard alignment is superior because it is the greatest distance from built-up areas, substantially minimizing construction-related impacts on existing communities.

Alternative 5 would include installation of pipeline within the Gerber Road extension corridor east of Excelsior Road rather than Florin Road. The Gerber Road extension corridor is already disturbed through agricultural activities and initial road right-of-way improvements, while the Florin Road right-of-way east of the proposed water treatment plant site crosses through vernal pool preserves, existing and proposed mitigation banks, and open space conservancies. Construction in the Gerber Road extension right-of-way therefore, would reduce overall impacts on aquatic resources compared to use of Florin Road, as a result of previous disturbances and more flexibility to avoid and minimize impacts to waters of the United States. Alternatives 2, 3, and 4 would result in greater net impacts compared to Alternative 5.

b. Water Treatment Plant Sites

SCWA reviewed numerous potential general locations for the proposed water treatment plant (WTP). Engineering studies determined that the WTP needed to be located in the central or western portion of the Zone 40 service area. Siting the WTP in one of these areas would reduce the amount of treated water conveyance and distribution pipelines that would be required, minimizing project costs and reducing environmental effects associated with construction of additional pipelines. Based on this review, potential locations for the WTP were narrowed down to two general areas; sites on the eastern edge of the SCRSD s Wastewater Treatment Plant Bufferlands, and sites near the center of SCWA s Zone 40 area. Based on engineering and environmental analyses, and consultation with SRCSD, locations

near the SRCSD wastewater treatment plant were eliminated for the following reasons:

The Bufferlands were established specifically to ensure that other development would not encroach on the wastewater treatment facilities and thereby restrict expansion of the facilities or cause other conflicts with the operation of the treatment facilities.

Locations for the WTP in the Bufferlands only made engineering and economic sense when the City of Sacramento was a partner in the proposed project because the City would have used the proposed WTP to deliver water to its existing customers in south Sacramento. When the City decided to withdraw from the project in 2001, this location was no longer viable as it would require much greater pipeline construction and result in additional associated environmental effects to serve Zone 40 customers as compared to a site in the central Zone 40 area. In addition, SCRSD was highly reluctant to place another industrial type facility within the Bufferlands. Consequently, a Bufferlands location for the WTP was determined to be impracticable for logistical reasons.

Furthermore, although a formal wetland delineation of the Bufferlandswas not conducted, based on knowledge gained from previous projects, review of aerial photography, and wetland delineation work conducted for the proposed project in adjacent and similar areas, much of the Bufferlands are expected to be jurisdictional wetlands, thereby expected to result in greater impacts to aquatic resources than other locations.

Sites near the center of the Zone 40 service area were evaluated for their ability to minimize operational and capital costs, minimize effects on surrounding neighbors, and minimize impacts on wildlife habitats and aquatic resources, while meeting engineering and other requirements of the proposed WTP. Objectives and site selection criteria were developed from these initial goals and applied to a four-square-mile area centrally located in the Zone 40 service area and bounded by Bradshaw, Elder Creek, Excelsior and Gerber Roads. Within this area, parcels containing floodplains, Williamson Act lands, nature preserves, and mitigation banks were eliminated.

An analysis of the WTP facility s activities and needs was used to define the amount of area needed for the plant site, which was determined to be 80 to 100 acres. SCWA wished to avoid condemnation for acquisition of property, so only properties with willing sellers were considered. Other conditions constrained site selection: developed areas, former and existing landfills, lands designated as prime agricultural lands, and proposed mitigation banks. In addition, sites that would minimize impacts on wildlife areas and aquatic resources were prioritized.

Initial evaluation using aerial photo interpretation and General Plan land use reviews eliminated several parcels throughout the four-square-mile area under consideration and resulted in nine potential contiguous 80-acre sites. Of those, six potential sites were screened out based on a more detailed evaluation including ease of acquisition (i.e., number of owners), proximity to the Gerber landfill and to floodplains, and presence of wetlands and other potential wildlife habitats.

Landowners of the three remaining sites were contacted to discuss purchase.
The owners of two of the sites were interested in entering into options to sell. Ultimately, only a single satisfactory option agreement could be reached and that agreement was executed with the owner of parcel 066-0060-001. This site was determined to be the only practicable alternative for the WTP.

c. EBMUD Water Supply Alternative

Alternative 6: Freeport Intake Facility to Zone 40 Surface Water Treatment Plant/Enlarge Pardee Reservoir

Under Alternative 6, SCWA water needs would be met by conveying water from the Sacramento River, and EBMUD water needs would be met by enlarging its Pardee Reservoir water storage facility on the Mokelumne River. The location and design of the intake facility, the pipeline from the intake facility to the proposed water treatment plant would be the same as described for Alternative 5. For the enlarge Pardee Reservoir component, Alternative 6 would increase the storage capacity of Pardee Reservoir and no water would be diverted under EBMUD s amended water service contract with the Bureau of Reclamation.

Evaluation
Alternative 6 would have the highest cost and the greatest environmental impacts of all the alternatives, including impacts on aquatic resources, recreation, aesthetics, soils, and traffic. Therefore, Alternative 6 is not the LEDPA.

d. Groundwater Banking Alternative

FRWA and the Bureau of Reclamation also considered a groundwater banking alternative. Because of institutional and geological constraints, this analysis was conducted as a programmatic evaluation. For the purposes of the programmatic analysis, the groundwater banking component assumed that diversion of EBMUD and SCWA water would occur primarily in wet years from the Sacramento River at Freeport through facilities essentially identical to those described for Alternatives 2 through 5. The SCWA water would be treated at the proposed WTP and distributed throughout its Zone 40 service area and to injection wells near existing and planned extraction wells. During dry and normal years most demands in Zone 40 would be met through groundwater, stored surface water and other (non-FRWP) surface water. EBMUD water would be conveyed to the FSC then to the Galt Area for in lieu recharge and percolation.

The incremental cost of a groundwater banking component is projected to be on the order of $100 200 million, in addition to the costs associated with the basic FRWP. There do not appear to be substantial offsetting cost savings associated with a groundwater banking component. Moreover, while groundwater banking is viable conceptually and technically, there is no existing or near-term reasonably foreseeable groundwater banking program that could be implemented as a component of the FRWP. While groundwater banking Basin is technically feasible, there are substantial logistical and economic issues that must be resolved

before groundwater banking could be considered practicable.

C. Physical/chemical characteristics and anticipated changes

(X) Substrate: Much of the pipeline installation and construction of the proposed water treatment plant and other facilities will require trenching through and/or filling of jurisdictional waters of the U.S. Where practicable, areas impacted by construction will be restored to pre-project conditions. Permanent impacts will be restored off-site. All impacts to vernal pools and swales, regardless of their potentially temporary nature, will be compensated at a 2:1 ratio offsite.

(X) Currents, circulation or drainage patterns: The intake facility on the Sacramento River is expected to affect currents and circulation patterns. Project construction and operation of the intake facility has been designed to ensure that the integrity and safety of the levees are not compromised, including streambank protection features to protect against increased velocities and scour.

(X) Suspended particulates; turbidity: Minimal impacts are expected to occur during construction in or near flowing waterways. The applicant will prepare and implement an erosion control and restoration plan to control short- and long-term erosion and sedimentation effects, including construction BMPs.

( ) Water quality (temperature, salinity patterns and other parameters): No impacts.

( ) Flood control functions: No impacts.

( ) Storm, wave and erosion buffers: No impacts.

( ) Erosion and accretion patterns: No impacts.

( ) Aquifer recharge: No impacts.

( ) Baseflow: No impacts.

Additionally, for projects involving the discharge of dredged material: N/A

( ) Mixing zone, in light of the depth of water at the disposal site; current velocity, direction and variability at the disposal site; degree of turbulence; water column stratification discharge vessel speed and direction; rate of discharges per unit of time; and any other relevant factors affecting rates and patterns of mixing:

D. Biological characteristics and anticipated changes (check applicable blocks and provide concise description of impacts for the proposed project, other evaluated practicable

alternatives, and the no action):

(X) Special aquatic sites (wetlands, mudflats, coral reefs, pool and riffle areas, vegetated shallows, sanctuaries and refuges, as defined in 40 CFR 230.40 45): The proposed pipelines, treatment plant and associated facilities are expected to impact a variety of wetlands. These resources, including vernal pools and other depressional wetlands, perform important natural functions, provide important habitat to dependent plant and wildlife species, and are locally and regionally important. Impacts include permanent loss or temporary disturbance as a result of pipeline installation and placement of above-ground facilities. The project has been designed to avoid and minimize impacts on these resources to the extent practicable including siting of project facilities in existing rights-of-way or previously disturbed areas, and the use of available technology and construction methods that minimize impacts (e.g., many of the stream crossings will be accomplished through underground directional drilling which is expected to have no impact on surface waters.. Areas subject to temporary impacts will be restored onsite and permanent impacts will be mitigated at appropriate offsite locations. Although the applicant proposes to restore vernal pools and swales in the construction easement to pre-project conditions, uncertainty regarding the success of such restoration led to the additional requirement for 2:1 compensatory mitigation off-site for these impacts.

(X) Habitat for fish and other aquatic organisms: The proposed intake facility will impact anadromous and other types of fish and other aquatic organisms. Other species that are likely to be affected include California tiger salamander, giant garter snake, vernal pool fairy and tadpole shrimp.

In addition to direct impacts at the intake facility, implementation of the project has the potential to change water supply operations and diversions, potentially affecting river flow and the dependent fish habitat in the Trinity, Sacramento, Feather, and American Rivers and in the Sacramento San Joaquin Delta estuary. The project may impact spawning, rearing, and migration habitat; contaminants; predation; direct injury; water temperature; and entrainment. Overall, however, the project results in less than significant changes to these atributes.

Impacts to California tiger salamander and vernal pool fairy and tadpole shrimp habitat are a result of impacts to vernal pools and depressional wetlands. Additionally, impacts to California tiger salamander are a result of impacts to upland habitats such as grasslands surrounding the aquatic resources. Impacts to giant garter snake habitat will be avoided and minimized by tunneling under Morrison Creek. Areas temporarily impacted will be restored onsite and permanent impacts will be mitigated at appropriate offsite locations consistent with the Terms and Conditions included in the Biological Opinions issued by NOAA Fisheries and USFWS.

(X) Wildlife habitat (breeding, cover, food, travel, general): See above.

(X) Endangered or threatened species: Both the U.S. Fish and Wildlife Service and NOAA Fisheries completed Biological Opinions, including incidental take statements and

reasonable and prudent measures for species of concern. Those Biological Opinions are incorporated by reference in this Decision Document and the DA permit.

( ) Biological availability of possible contaminants in dredged or fill material, considering hydrography in relation to known or anticipated sources of contaminants; results of previous testing of material from the vicinity of the project; known significant sources of persistent pesticides from land runoff or percolation; spill records for petroleum products or designated (Section 311 of the CWA) hazardous substances; other public records of significant introduction of contaminants from industries, municipalities, or other sources: N/A

E. Human use characteristics and impacts (check applicable blocks and provide concise description of impacts for the proposed project, other evaluated practicable alternatives, and the no action):

(X) Existing and potential water supplies; water conservation: The primary purpose of the proposed activity is water supply.

( ) Recreational or commercial fisheries: No impacts.

( ) Other water related recreation: No impacts.

( ) Aesthetics of the aquatic ecosystem: No impacts.

( ) Parks, national and historic monuments, national seashores, wild and scenic rivers, wilderness areas, research sites, etc.: No impacts.

(X) Traffic/transportation patterns: Some disruption to traffic and transportation patterns will occur temporarily during construction.

(X) Energy consumption or generation: The proposed intake facility, water treatment plant and pumping stations will result in increased energy use.

(X) Navigation: Construction of the proposed intake facility on the Sacramento River may result in minor temporary impacts. Lighting designed to meet Coast Guard requirements will be installed on the outer sheet piling as aids to mariners.

( ) Safety: No impacts.

(X) Air quality: The proposed permit has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed de minimis levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps continuing program responsibility and generally cannot be practicably controlled by the Corps. For

these reasons a conformity determination is not required for this permit action.

(X) Noise: Temporary impacts associated with construction have been minimized by the choice of pipeline alignment.

(X) Historic properties (Section 106 National Historic Preservation Act): Two Historic Properties and one potential Historic Property exist within the footprint of the FRWP. The Walnut Grove Branch Line of the Southern Pacific Railroad and the Victory Trees were determined eligible for listing in the National Register of Historic Places (NRHP). Both resources are located adjacent to the project's Intake Facility and will be crossed by the project pipeline. The Walnut Grove Branch Line may be affected during construction. The Victory Trees will be avoided by the use of tunneling construction methods. CA-Sac-44, the potential Historic Property, is a Native American village and burial site that was mapped at the location of the Intake Facility. The mapped location of CA-Sac-44 is presently paved over, though as-builts and utility drawings indicate that intact archaeological deposits may be present under the pavement. To determine whether archaeological materials and human remains are still present at CA-Sac-44, the United States Bureau of Reclamation has authorized an archaeological excavation to determine presence/absence and, if presence is determined, to evaluate its eligibility for listing in the NRHP. All of the aforementioned properties will be treated consistent with the signed Memorandum of Agreement between the SHPO, the United States Bureau of Reclamation, and the Freeport Regional Water Authority.

(X) Land use classification: Some changes will be needed where permanent structures are planned (e.g., the water treatment facility).

( ) Economics: No impacts.

(X) Prime and unique farmland (7 CFR Part 658): The FRWP could affect Prime and Unique Farmland as a result of pipeline construction. FRWA has committed to mitigating for this loss through compliance with Sacramento County General Plan requirements that include land preservation and/or contributions to a fund to purchase conservation easements.

( ) Food and fiber production: No impacts.

( ) General water quality: No impacts.

( ) Mineral needs: No impacts.

( ) Consideration of private property: No impacts.

( ) Environmental justice (Title VI of the Civil Rights Act and Executive Order 12898): The proposed action is not expected to negatively impact any community, and therefore is not expected to cause disproportionately high and adverse impacts to minority or

low-income communities.

( ) Other: No impacts.

F. Summary of secondary, indirect, and cumulative effects: The FRWP EIR/EIS determined that implementation of the proposed project could result in significant cumulative effects to: Vegetation and Wetland Resources, Wildlife, Agricultural, Cultural Resources. Many of the cumulative impacts that could occur have been eliminated or reduced to less-than-significant levels through incorporation of mitigation measures into the project. However, the cumulative impact on agricultural resources could not be reduced to a less-than-significant level and is considered unavoidable.

G. Summary of proposed mitigation measures: FRWA will implement a Mitigation, Monitoring and Report Plan that includes mitigation measures for the following resources: vegetation and wetland resources, wildlife, agricultural resources, air quality, noise, and cultural resources. FRWA is also developing and will implement the following: Erosion and Sediment Control Plan, Storm Water Pollution Prevention Plan, Traffic Control Plan, Dust Suppression Plan, Fire Control Plan, Phase I and Phase II Hazardous Materials Studies, Hazardous Materials Management Plan, Channel and Levee Restoration Plan, Hydrologic Simulation Modeling and Scour Analysis, Agricultural Land Restoration, Spoils Disposal Plan, Environmental Training, Access Point/Staging Area Plan, Trench Safety Plan, Private Property Acquisition and Access, Noise Compliance, Coordinate Operations between FRWA and Sacramento Regional County Sanitation District, Project Planning, Coordination, and Communication Plan. Furthermore, the applicant is required, through the Special Conditions below, to prepare and implement a refined and revised Mitigation Plan to compensate for impacts to aquatic resources.

H. Special Conditions added to the permit:

1. This DA permit does not authorize you to take listed species or designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (i.e., an ESA Section 10 permit(s), or a Biological Opinion(s) under ESA Section 7, with incidental take provisions with which you must comply). The attached Fish and Wildlife(USFWS) and National Marine Fisheries Service s (NMFS) Biological Opinions (USFWS s Number 1-1-04-F-0224 dated December 10. 2004 and December 27, 2004 NMFS Opinion) contain mandatory terms and conditions to implement the reasonable and prudent measures that are associated with the incidental take specified in those Biological Opinions. Your authorization under this DA permit is conditional upon your compliance with all the mandatory terms and conditions associated with incidental take in the attached Biological Opinions. All mandatory terms and conditions of the Biological Opinions are incorporated by reference in this permit. Failure to comply with the mandatory terms and conditions of the Biological Opinions, where a take of a listed species occurs, would constitute an unauthorized take and non-compliance with your DA permit. The Fish and Wildlife Service and NOAA Fisheries are the appropriate authorities to determine compliance

with the mandatory terms and conditions of their Biological Opinions and with the ESA. You must comply with all conditions of the Biological Opinions, including those ascribed to the Federal Lead Agency (i.e., the Bureau of Reclamation). Note that habitat conservation recommendations for Essential Fish Habitat are identical to Terms and Conditions 1a, 1b, 2d, 2e and 2f of the NMFS Biological Opinion, so no additional recommendations are required.

2. You must revise and refine the Conceptual Off-site Mitigation Plan for the Freeport Regional Water Project (Plan), dated April 24, 2006, in consultation with the Corps Regulatory Section, to identify, with specificity:

a. Mitigation site(s), including accurate and complete Title information;

b. A description of existing natural resources, including their locations and functions, present on the mitigation site(s);

c. Locations of all proposed construction activities (e.g., wetland creation, restoration and enhancement);

d. Construction activities, including, but not limited to:
* Timing, including approximate start and end dates
* Excavation design, including plan and section views, as appropriate
* Expected water ponding depths and durations
* Depth to subsurface impermeable layer (as appropriate)
* Soil treatments (as appropriate)
* Construction BMPs;

e. Plant palettes and source(s) of material (note: to the extent practicable, all planted and seeded species should be native to the area);

f. Expected functions of created/restored/enhanced aquatic functions;

g. Success criteria and performance standards;

h. Permitted and prohibited uses of the mitigation site(s); In general, examples of prohibited activities include, but are not limited to, construction of roads, utility lines, trails, or structures, storage of equipment, fuel or hazardous materials, grading (post-construction), discharge of dredged or fill material (post-construction), discing, pesticide use, burning, off-road vehicle use, trash or debris disposal, vandalism;

i. Fencing and signage requirements;

j. Timing (i.e., pre- during, and post-construction), frequency and location of aerial and other photographs of the mitigation area(s);

k. Short-term and Interim monitoring requirements, including the content of monitoring reports (e.g., an outline or template);

l. Long-Term Operations and Management Plan, describing all expected long-term activities, including monitoring requirements;

m. Adaptive management plan, including potential remedial measures and triggers for undertaking such measures;

n. A PAR analysis identifying the amount of the Endowment Fund (note that the Corps expects that a separate analysis and Endowment Fund may be necessary for each mitigation site);

o. Identification of the mitigation area(s) management entity (subject to approval by the Corps);

p. Identification of the holder of the Endowment Fund(s) (subject to approval by the Corps); and

q. Identification of Conservation Easement or Fee-simple title holder(s) (subject to approval by the Corps)

The Plan should conform to the Format presented in the Sacramento District s Mitigation and Monitoring Proposal Guidelines, dated December 30, 2004 (http://www.spk.usace.army.mil/organizations/cespk-co/regulatory/pdf/Mitigation_Monitoring_Guidelines.pdf). The Corps Regulatory Section must approve the final revised and refined Mitigation Plan in writing to validate it.

3. To compensate for the loss of 6.623 acres of seasonal freshwater resources (including non-jurisdictional waters of the State), you will create or restore13.237 acres of functionally similar aquatic resources at the chosen mitigation site(s). (As shown on Table 1. of the Conceptual Mitigation Plan)

4. To compensate for the loss of 1.328 acres of low-functioning mineral soil flat (wet meadow), you will create or restore 1.328 acres of higher functioning, but similar aquatic resources at the chosen mitigation site(s).

5. To compensate for the loss of 0.654 acres of perennial freshwater marsh, you will create or restore 1.308 acres of functionally similar aquatic resources at the chosen mitigation site(s). (As shown on Table 1. of the Conceptual Mitigation Plan)

6. To compensate for the loss of 0.275 acres of riparian aquatic resources, you will create or restore 0.55 acres of functionally similar riparian resources at the chosen mitigation site(s). (As shown on Table 1. of the Conceptual Mitigation Plan)

7. To compensate for the permanent and temporary loss of 2.537 acres of vernal pools and swales (including non-jurisdictional waters of the State), you will create or restore 5.074 acres of functionally similar vernal pools and swales at the chosen mitigation site(s), at a ratio of 2:1. (As shown on Table 1. of the Conceptual Mitigation Plan)

8. You must implement, in its entirety, the revised and refined Mitigation Plan, as described in Condition 2.

9. You must begin construction of the compensatory mitigation prescribed in the revised and refined Mitigation Plan described above in Condition 2. in advance of, or concurrently with the start of construction of the authorized work (with the exception of work in the Sacramento River and Dry, Coyote, Goose or Bear Creeks or in the Mokelumne River; please note Special Conditions 15 and 16 below).

10. You must notify the Corps Regulatory Section, in writing (via letter, facsimile or email) of the start and completion dates of mitigation construction activities no later than ten calendar dates after each date.

11. You must provide one complete set of as-built drawings of the completed compensatory mitigation work to the Corps Regulatory Section. The as-builts must indicate changes from the original plans in indelible red ink and an explanation for any such changes. You must provide as-built drawings to this office no later than 60 days after completion of construction of the compensatory mitigation area(s).

12. Prior to the start of construction of the authorized work, you must ensure that a permanent Conservation Easement(s) is recorded to ensure maintenance of the chosen mitigation site(s) as an aquatic resource preserve(s) and wildlife habitat area(s) in perpetuity. You must provide a copy of the proposed Conservation Easement to the Corps Regulatory Section for approval prior to recordation. You must provide a copy of the recorded easement to this office no later than 30 days following the recordation, and in all events, at least 10 days prior to the start of work authorized by this permit (with the exception of work in the Sacramento River, Dry, Coyote, Goose or Bear Creeks or in the Mokelumne River; please note Special Conditions 14 and 15 below).

13. Prior to the start of construction of the authorized work (with the exception of work in the Sacramento River, Dry, Coyote, Goose or Bear Creeks or in the Mokelumne River; please note Special Conditions 14 and 15 below), you must deposit monies into the Endowment Fund(s) for the compensatory mitigation site(s) equal to the amount specified by the PAR analysis(es) described in the revised and refined Mitigation Plan (see Condition 2. above).

14. Prior to the start of work in the Sacramento River, you must ensure the preservation, creation or restoration of five acres of shallow water habitat for every acre lost. This can be accomplished by obtaining credits at an approved location such as Kimball Island Mitigation Bank. You must provide the Corps Regulatory Section evidence of this transfer of credits at

least 10 days before work begins.

15. Prior to the start of work in Dry, Coyote, Goose or Bear Creeks or in the Mokelumne River, you must obtain 0.278 credits at an approved location, such as the Kimball Island Mitigation Bank. You must provide the Corps Regulatory Section evidence of this transfer of credits at least 10 days before work begins.

16. You must restore all aquatic resources temporarily impacted during construction as described in the Mitigation and Monitoring Plan for Temporary Impacts of the Freeport Regional Water Project , dated April 2006, attached to this authorization.

17. You must design and construct all crossings of waters of the United States to retain or restore, as appropriate, the natural substrate, and to accommodate all reasonably foreseeable wildlife passage and expected high flows. You must submit specific detailed plans to the Corps Regulatory Section for approval prior to implementation. These plans must include restoration or establishment of riparian vegetation at each open trench crossing location and extending a minimum of 100 feet from the centerline of the pipeline alignment in each direction.

18. For construction activities within the Klotz property (APN 123-0010-001), you must, to the extent practicable, restore the subsurface clay pan layer. You must submit monitoring reports, including descriptions and photographs of the area pre-, during and post-construction.

19. You must allow representatives from the Corps of Engineers to inspect the authorized activity and associated compensatory mitigation at any time necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

20. All terms and conditions of the Clean Water Act Section 401 Water Quality Certification for this project, dated April 26, 2006, are expressly incorporated as conditions of this authorization.

21. You understand that if future operations of the United States require the removal, relocation, or other alteration of the structure or work authorized in navigable waters of the U.S. herein, or if, in the opinion of the Secretary of the Army or his authorized representative, such structure or work will cause unreasonable obstruction to the free navigation of navigable waters (i.e., the Sacramento River), you will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structure, work, or obstruction(s) caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

III. Findings:

A. Other authorizations or compliance determinations:

1. Water quality certification:

Date:
Issued: April 26, 2006
Denied: _____
Waived: _____

Special Conditions Yes__X___ No_____ (If yes see attached)

2. Compliance with Section 106 of the National Historic Preservation Act: The State Historic Preservation Officer, the U.S. Bureau of Reclamation, and the Freeport Regional Water Authority entered into a Memorandum of Agreement on April XX, 2006. The MOA commits the agencies to a process compliant with Section 106 of the NHPA.

3. Compliance with the Endangered Species Act: NOAA Fisheries issued a Biological Opinion on December 27, 2004 (Ref. # 151422SWR01SA5822:BSK) and USFWS issued a Biological Opinion on December 10, 2004 (Ref. # 1-1-04-F-0224).

4. State and/or local authorizations (if issued): The applicant is required to obtain all state and local authorization as required by law, statute and regulation.

B. We received a complete application on February 23, 2006. We issued a public notice describing the project on February 24, 2006, and sent the notice to all interested parties (mailing list) including appropriate state and Federal agencies. All comments received on this action have been reviewed and are summarized below.

1. Summary of comments received.

a. Federal agencies:

1) U. S. Environmental Protection Agency (EPA): No comments; EPA will be invited to review and comment on the revised and refined Mitigation Plan.

2) U. S. Fish and Wildlife Service (FWS): No comments.

3) U. S. National Marine Fisheries Service (NMFS): No comments.

4) Other: No comments.

b. State and local agencies: No comments.

c. Organizations and Individuals: Several adjacent landowners requested information regarding the status of aquatic resources on their properties, but none

objected to the proposed project.

d. Requests for public hearings: None

2. Evaluation:

I have reviewed and evaluated, in light of the overall public interest, the documents and factors concerning this permit application as well as the stated views of other interested agencies and the concerned public. In doing so, I have considered the possible consequences of this proposed work in accordance with regulations published in 33 CFR Parts 320 to 330 and 40 CFR Part 230. The following paragraphs include my evaluation of comments received and how the project complies with the above cited regulations.

a. Consideration of comments: None necessary.

b. Evaluation of Compliance with Section 404 (b)(1) guidelines (restrictions on discharge, 40 CFR 230.10). (A check in a block denoted by an asterisk indicates that the project does not comply with the guidelines.):

1) Alternatives test:

Yes* No X i) Based on the discussion in II B, are there available, practicable alternatives having less adverse impact on the aquatic ecosystem and without other significant adverse environmental consequences that do not involve discharges into "waters of the United States" or at other locations within these waters?

Yes X No* ii) Based on II B, if the project is in a special aquatic site and is not water dependent, has the applicant clearly demonstrated that there are no practicable alternative sites available?

Special restrictions. Will the discharge:

Yes* No X i) Violate state water quality standards?

Yes* No X ii) Violate toxic effluent standards (under Section 307 of the Act)?

Yes* No X iii) Jeopardize endangered or threatened species or their critical habitat?

Yes* No X iv) Violate standards set by the Department of Commerce to protect marine sanctuaries?

Yes No* v) Evaluation of the information in II C and D above indicates that the proposed discharge material meets testing exclusion criteria for the

following reason(s): N/A

( ) based on the above information, the material is not a carrier of contaminants.

( ) the levels of contaminants are substantially similar at the extraction and disposal sites and the discharge is not likely to result in degradation of the disposal site and pollutants will not be transported to less contaminated areas.

( ) acceptable constraints are available and will be implemented to reduce contamination to acceptable levels within the disposal site and prevent contaminants from being transported beyond the boundaries of the disposal site.

2) Other restrictions. Will the discharge contribute to significant degradation of "waters of the United States" through adverse impacts to:

Yes* No X i) Human health or welfare, through pollution of municipal water supplies, fish, shellfish, wildlife, and special aquatic sites?

Yes* No X ii) Life states of aquatic life and other wildlife?

Yes* No X iii) Diversity, productivity and stability of the aquatic ecosystem, such as loss of fish or wildlife habitat, or loss of the capacity of wetlands to assimilate nutrients, purify water or reduce wave energy?

Yes* No X iv) Recreational, aesthetic and economic values?

3) Actions to minimize potential adverse impacts (mitigation).

Yes X No* Will all appropriate and practicable steps (40 CFR 230.70 77) be taken to minimize the potential adverse impacts of the discharge on the aquatic ecosystem? Refer to permit special conditions listed above.

c. General Evaluation [33 CFR 320.4 (a)]:

1) The relative extent of the public and private need for the proposed work has been considered: Water supply reliability is a substantial public need that will be addressed directly by the proposed project.

2) The practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work has been evaluated: See sections II.B.2. and II.B.3.

3) The extent and permanence of the beneficial and/or detrimental effects the proposed structures or work may have on the public and private uses to which the area is suited has been reviewed: Work in navigable waters is not expected to significantly affect the

reach or use of such waters. Moreover, Special Condition 21 requires the permitee to remove, relocate, or otherwise alter the structure or work authorized in navigable waters of the U.S if necessary.

d. Significant National Issues:

4. Determinations:

a. Finding of No Significant Impact (FONSI) (33 CFR Part 325). Having reviewed the information provided by the applicant, all interested parties and the assessment of environmental impacts contained in Part II of this document, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an Environmental Impact Statement will not be required.

b. Section 404(b)(1) Compliance/Non compliance Review (40 CFR 230.12):

( ) The discharge complies with the guidelines.

(X) The discharge complies with the guidelines, with the inclusion of the appropriate and practicable conditions listed above (in II.H) to minimize pollution or adverse effects to the affected ecosystem.

( ) The discharge fails to comply with the requirements of these guidelines because:

( ) There is a practicable alternative to the proposed discharge that would have less adverse effect on the aquatic ecosystem and that alternative does not have other significant adverse environmental consequences.

( ) The proposed discharge will result in significant degradation of the aquatic ecosystem under 40 CFR 230.10(b) or (c).

( ) The discharge does not include all appropriate and practicable measures to minimize potential harm to the aquatic ecosystem, namely....

( ) There is not sufficient information to make a reasonable judgement as to whether the proposed discharge will comply with the guidelines.

c. Section 176(c) of the Clean Air Act: I have analyzed the proposed project for conformity applicability and determined that the proposed activities in this permit action will not exceed de minimis levels of direct emissions of a criteria pollutant or its precursors, and are exempt by 40 CFR 93.152. Any later indirect emissions generally cannot be practicably controlled by the Corps of Engineers and, for these reasons, the permit decision does not require a conformity determination.

d. Public interest determination: I find that issuance of a Department of the Army permit (with special conditions), as prescribed by regulations published in 33 CFR Parts 320 to 331, and 40 CFR Part 230 (is or is not) contrary to the public interest.

PREPARED BY: _____ DATE: _____
Ms. Kathleen Dadey
Project Manager

FOR THE DISTRICT ENGINEER:

APPROVED BY: _____ DATE: 9 May 06
Thomas J. Cavanaugh
Acting Chief, Central California/Nevada Section